# GOVERNMENT OF INDIA
# AGRICULTURE
# LOK SABHA

UNSTARRED QUESTION NO:261
ANSWERED ON:19.11.2007
TECHNOLOGIES FOR FOOD PRODUCTION
Badiga Shri Ramakrishna

**Will the Minister of AGRICULTURE be pleased to state:**

(a) the manner in which the Geographic Information System, Remote Sensing, Global Position System, Simulation Modelling have helped in increasing the food production in the country;

(b) whether Bhabha Atomic Research Centre (BARC) has developed some improved varieties of crops for commercial cultivation;

(c) if so, the details thereof;

(d) whether there is any proposal for the application of biosensors, biotechnology, nano-technology, etc., for improving the production of foodgrains in the country; and

(e) if so, the details thereof and the benefits likely to accrue therefrom?

## Answer

THE MINISTER OF STATE IN THE MINISTRY OF AGRICULTURE (SHRI KANTILAL BHURIA)

(a) These technologies having applications across diverse fields of resource characterization, land use planning, precision farming, crop forecasting, flood & drought monitoring etc. have helped increase agricultural production in the country.

(b) & (c): Yes, Sir. Using radiation induced mutation and cross-breeding, Bhabha Atomic Research Centre (BARC) has developed 29 improved varieties and released for commercial cultivation. These comprise 16 in oilseeds (12 groundnut, 2 soybean and 2 mustard); 11 in pulses (4 blackgram, 5 greengram and 2 pigeonpea) and 1 each of rice and jute.

(d) & (e): Yes, Sir. The Indian Council of Agricultural Research (ICAR) is developing improved cultivars/varieties with high yield potential, tolerance to biotic and abiotic stresses and better quality traits etc. through bio-technological interventions. There is proposal for establishing Institutes on Agricultural Bio- technology, Biotic and Abiotic Stress Management during XIth plan.

The nano-technology has potential in enhancing resource use efficiency in terms of soil-water-nutrient-pesticide etc. through development of suitable nano-products and biosensors. The potential, however, remains to be harnessed.